

ABSTRACT

[0032] A method for forming one or more FinFET devices includes forming a source region and a drain region in an oxide layer, where the oxide layer is disposed on a substrate, and etching the oxide layer between the source region and the drain region to form a group of oxide walls and channels for a first device. The method further includes depositing a connector material over the oxide walls and channels for the first device, forming a gate mask for the first device, removing the connector material from the channels, depositing channel material in the channels for the first device, forming a gate dielectric for first device over the channels, depositing a gate material over the gate dielectric for the first device, and patterning and etching the gate material to form at least one gate electrode for the first device.